

which is in great need of intelligent sponsorship. It no longer suffices to get the patient well. He should be prepared for useful work. This field of endeavor challenges the interest and coöperation of public and private agencies.

## RESOLUTION CONCERNING THE CARE OF TUBERCULOUS VETERANS\*

THE resolution which follows was adopted by the California Trudeau Society and the California Tuberculosis and Health Association in a symposium on Future Plans for the Control of Tuberculosis, Los Angeles, March 29, 1944.

*Resolved*, That we, the members of the California Tuberculosis and Health Association, in convention assembled, realize the seriousness of the tuberculosis problem involved in our War Veterans;

That we recognize that this Veterans' Facility as at present constituted is seriously limited in attempting to give medical treatment to cure these patients;

That we agree in principle with the solution offered by Dr. Chesley Bush in his report as presented at this meeting;

That we recognize that the National Tuberculosis Association has this matter under consideration in an attempt to reach a satisfactory solution;

That we instruct this Board of Directors of the California Tuberculosis and Health Association to communicate to the National Tuberculosis Association our desire that the program as outlined by Doctor Bush be given their serious consideration at their Annual Meeting in May, 1944 to the end that on a National, State, and local level adequate discussion be stimulated that will lead to effective action in helping the individual tuberculous Veteran to achieve a cure of his disease.

\* Re: Resolution, see articles on pages 88-89.

## VIRUS PNEUMONIA\*\*

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FOR this audience it will not be necessary to review the fundamental features of the so-called "primary atypical pneumonia, etiology unknown," which we have come to believe, in the Army, is a very typical disease, and the etiology of which we believe we know. This disease is by all means the most common of the respiratory ailments with which we have had to deal, and is characterized by a rather typical picture, though, to be sure, it manifests itself in a wide variety of forms from the mildest, almost asymptomatic form to a very severe and even fatal illness.

We have had at Santa Ana about 2,500 cases of pneumonia, of which approximately 2,000 have been of the virus type. In this series, one patient has died. That patient, however, had his picture complicated by a concurrent encephalitis and myelitis. The description given is that of a

disease in which the x-ray finds a consolidation in the lung, which is often very much greater than one would expect from the physical findings there. The clinical course of this condition is well known to you all, and is borne out by our observations. We have, however, been able to make a few observations which, perhaps, may be said to be original in that they are of a kind that the ordinary practitioner has no opportunity of making.

## PNEUMONIA FOUND IN ROUTINE EXAMINATIONS

In the first place, we have encountered a group of men, newly processed for cadet training, in whom a considerable patch of pneumonia was discovered accidentally, that is, in the course of their routine x-ray examination for classification as cadet. These patients presented frequently a truly remarkable appearance, showing a large patch of pneumonia with an almost complete absence of symptoms, though, to be sure, upon close investigation it was usually found that they had had a bad cold for a while, or that they had been coughing; and, usually, when they were put into bed in the hospital, as was invariably done, they were found to be running a low grade fever. The problem of the differentiation of this condition from tuberculosis should be of particular interest to this audience. It is not infrequently that these patches of pneumonia are located at one apex or another, and, taken together with the patient's rather benign clinical picture, could readily be confused with an active tuberculosis. In fact, the x-ray men refused to make the differentiation until they had had an opportunity to reexamine the patient after a lapse of from several days to two weeks. When, as usually happened in such cases, the shadow entirely cleared in the course of ten days' observation, the assumption that they were dealing with a virus type of pneumonia was justifiable. This group of asymptomatic cases, with significant amounts of pulmonary consolidation, deserves to be recognized as an entity, and, so far as I know, has not been previously described.

We were struck, as all others have been, with the migratory character of the consolidation in hundreds of instances, in watching it by x-ray moving from one part of the lung field to another while the original area cleared. The character of the sputum deserves mention, in that the bacterial flora is remarkably scanty. There seem to be fewer bacteria even than in normal saliva or bronchial mucous. With others we observed a strictly normal leukocyte count; and, corroborating other work, we found that approximately 70 per cent of the cases had positive cold agglutinin tests. The incidence of complications is really very low. Pleural pain is not uncommon, but real pleuritis with effusion is quite rare.

## VARIETY OF CASES

There were two cases of empyema, but these

\*\* Read before the California Trudeau Society, Los Angeles, March 30, 1944.

The opinions and assertions contained herein are the private ones of the writer, and are not to be used as official or reflecting the views of the Army Department or the Army service at large.

were due to secondary infection by streptococci. There were about five cases of pleural effusion, which cleared spontaneously without aspiration. About six cases of bronchiectasis were observed, but we were not able to say definitely whether or not they preëxisted; though the assumption is that, having passed a rather strict physical examination previously, the bronchiectasis developed as a consequence of the disease.

There is another complication standing at the opposite end of the line from the early asymptomatic cases, which we had a unique opportunity to observe. This was a group of patients who developed a chronic form of the disease, in whom, so to speak, the virus smouldered, to be activated whenever they took physical exercise, producing symptomatic relapse, new patches of consolidation, and febrile episodes. Some of these chronic cases developed the typical picture of cardiovascular asthenia, with increased pulse rates, sweating of the palms, and rather marked nervous instability. A group of these, numbering about twelve, persisted in their symptoms over a period of six to eleven months, and finally required discharge from the Army. This latter consequence of virus pneumonia also has been previously unrecognized, and it may be that some such serious virus infection of this sort, having, as we know it to have, a predilection for the central nervous system, could be really the underlying cause for the so-called cardio-vascular asthenia.

#### USE OF SULFONES

In the matter of treatment, our observations corroborated those of others, namely, that the sulfones have no effect upon the uncomplicated form of the disease. However, we watch the patients very carefully, and if they develop signs of secondary bacterial infection we do not hesitate to use sulfones, and, as a matter of fact, use them quite freely. We recognize a jump in the leukocyte count to anything above 11,000, or an occurrence of early pleurisy, or a change in the character of the sputum to a frankly purulent sputum, as evidence that such a secondary bacterial congestion has occurred. When this happens, we promptly give sulfones in full doses; and we feel many episodes which might have proven quite serious have been promptly terminated by such measures.

The most interesting therapeutic results we have obtained, however, have been from the use of convalescent serum. We make a practice of bleeding the convalescent patients and keeping on hand a pool of serum to be used in the more serious type of case. About 250 liters of serum have been so used in approximately 100 seriously-ill patients. In 50 per cent of the cases the results were spectacularly effective. In 25 per cent more the results were considered effective. In another 25 per cent the results were doubtful; but none of these patients died, and they were only given serum because they

were thought by the attending physician to be seriously ill. I personally feel that ten of these men would have died without administration of the serum, and think that such serum pools should be set up and maintained in all places where a considerable number of patients with this disease may be expected, such as county and general hospitals, institutions for the aged and insane, etc., as well as in military hospitals where the opportunity for doing such a thing, of course, is very much better.

In résumé, therefore, I want to report 2,000 cases of virus pneumonia with one death, to call attention to the possibility of the existence of a considerable degree of consolidation of the lung from this disease without the patient being aware of being seriously ill, to note the possible connection between virus disease and the development of so-called cardio-vascular asthenia, and to report on the successful use of convalescent serum in a rather large series of seriously-ill patients.

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#### FATE OF INFANTS OR VERY YOUNG CHILDREN WITH TUBERCULOSIS\*

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AND

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**T**UBERCULOSIS is well known to produce a high mortality in the very young. Data on hospitalization, discharge and follow-up of 243 children below three years of age in the Maybury Sanatorium indicate that prompt and continued hospitalization is helpful in returning such children to normal health.

In any large community, especially an urban community, there are, all told, a considerable number of children in whom tuberculosis produces definite pulmonary lesions. The larger number of these are Primary Type, but a considerable sprinkling of Reinfection Type occurs. Some of these have lesions that are very extensive. The data presented in this study indicate that the children of the group, who were kept in the hospital until the disease was under quite satisfactory control, fared better than those who left the hospital before their disease could be so classified. The over-all picture appears to indicate that hospitalization is decidedly beneficial.

Follow-up extended over a considerable time, the shortest being six months, the longest seventeen years. Among the 153 Primary cases which were followed after discharge, 142 were regarded as clinically well, one had been readmitted to the hospital and 10 had died.

\* From Detroit and the William H. Maybury Sanatorium (Detroit Tuberculosis Sanatorium), Northville, Mich.

Synopsis of paper read before the California Trudeau Society, Los Angeles, March 30, 1944.

Let us see to it that our lives, like jewels of great price, be noteworthy, not because of their width, but because of their weight.

—Seneca, *Epistula ad Lucilium*. Epis, xciii, 4.